



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).



$$\begin{aligned}
& + \frac{B_1}{m^2 \cdot 2! (2n)!} f^{(2n+2)}(a + \theta_2 x) - \frac{B_2}{m^4 \cdot 4! (2n-2)!} f^{(2n+2)}(a + \theta_4 x) + \dots \\
& - (-1)^n \frac{B_n}{m^{2n} \cdot (2n)! 2!} f^{(2n+2)}(a + \theta_{2n} x) \Big].
\end{aligned}$$

It will be noticed that this remainder may have its terms grouped into two sets whose terms correspond, term of one to term of the other, and such that all the terms of one set have positive, and all those of the other have negative, coefficients. Then by the lemma already proved, the  $f$ 's in the two sets may be replaced respectively by  $f^{(2n+2)}(a + \varphi_1 x)$  and  $f^{(2n+2)}(a + \varphi_2 x)$  where  $\varphi_1$  and  $\varphi_2$  are positive and less than unity. Making these changes in (12) we have the following final value for the remainder term:

$$\begin{aligned}
(13) \quad R_{2n+2} = & x^{2n+2} \left[ \frac{1}{(2n+2)!} + \frac{1}{2m \cdot (2n+1)!} + \frac{B_1}{m^2 \cdot 2! (2n)!} + \frac{B_2}{m^4 \cdot 4! (2n-2)!} \right. \\
& + \dots + \frac{B_{n-1}}{m^{2n-2} \cdot (2n-2)! 4!} + \left. \frac{B_n}{m^{2n} \cdot (2n)! 2!} \right] \\
& \times [f^{(2n+2)}(a + \varphi_1 x) - f^{(2n+2)}(a + \varphi_2 x)].
\end{aligned}$$

---

## NEW BOOKS.

---

Under this heading will be listed all new books received, which pertain to the general subject of mathematics as related to the collegiate and advanced secondary fields. So far as possible either short descriptive notices or more extended reviews will be given, according to the judgment of the committee having this department in charge. The chairman of this committee is Professor W. H. BUSSEY, of the University of Minnesota, Minneapolis, Minn., and the other members are Professor C. H. ASHTON, University of Kansas, Professor W. C. BRENKE, University of Nebraska, and Professor L. C. KARPINSKI, University of Michigan.

Publishers desiring to use this means of conveying to teachers of mathematics information concerning new books will please forward such books to the chairman of the committee.